

Blade Server Basics

Just what is a Blade?



A blade is literally a self-contained server, which collectively fits into an enclosure with other blades. Sometimes known as a chassis, this enclosure provides the power, cooling, connectivity, and management to each blade server. The blade servers themselves contain only the core processing elements, making them hot-swappable. HP refers to the entire package as a BladeSystem.

To get a better idea of what a single blade contains, an HP ProLiant blade holds hot-plug hard-drives, multiple I/O Cards, memory, multi-function network interconnects, and Integrated Lights Out remote management. For additional storage, blades can connect to another storage blade or to a network attached SAN.

HP BladeSystem converges server, storage and networking

HP BladeSystem is a modular infrastructure platform that converges server, storage and network fabric to accelerate operations and speeds delivery of applications and services running in physical, virtual, and cloud-computing environments. Designed to optimize virtually any workload, it is managed by a consumer inspired management platform that delivers unprecedented ease of use allowing you to deploy and manage your environment faster, at lower cost, and maximize productivity at any scale.

What workloads are blade servers best suited for?

When compared to other traditional rack-mount servers, a blade server solution can be tasked and scaled virtually any workload from client to cloud:

- **Server virtualization:** with full support for Citrix XenServer, Microsoft Hyper-V, VMware vSphere
- **Virtual Desktop:** that can span all types of users from basic task workers all the way to power users who require high performance graphics
- **Cloud infrastructure:** both private and public with specialized solutions such as HP CloudSystem
- **Big Data applications:** such as database and transactional processing that support a wide range of solutions from SAP, Microsoft, SAS and Oracle
- **IT Infrastructure solutions for collaboration:** such as Microsoft Exchange and Lync
- **Web page serving and caching**
- **SSL encrypting of Web communication**
- **Streaming audio and video content**
- Supports all of the popular operating systems available today

In other words, blades can be whatever you need them to be. Use the blade savings of time, money, and energy costs to create a competitive advantage over your competitors to achieve up to 68% reduction in data center costs over traditional rack environment, 90% reduction in downtime and speed delivery of new applications and services.

To get the big picture of what components are involved in a blade architecture for your datacenter of any size, the [Step-by-Step Guide to Build a BladeSystem](#) will provide those.